

CENTRAL INTELLIGENCE AGENCY  
INFORMATION REPORT

SECURITY INFORMATION

COUNTRY Germany (Russian Zone)

DATE DISTR. 21 June 1951

SUBJECT Development Orders for Laboratories  
in the Russian Zone of Germany

NO. OF PAGES 5

25X1

THIS IS UNEVALUATED INFORMATION 25X1

The following are Development Orders for Laboratories in the Soviet Zone of Germany:

Nature of research	Type of work ordered	Allocation for 1951 in east-marks	Date of delivery
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For explanation of symbols see note below.

1. ZLE Erfurt (Zentrallaboratorium fuer Rappengerroehren) Central Laboratory for Receiver Tubes.  
Manager: Dr. Heinze

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Further development of the following types of amplifiers: Output tube with a rated output of 2.0 W; hexode with very small nonlinear and modulation distortion; super control tube with large range of control, triode and linear luminous indication; diode with highly insulated, radiation-insulated cathode. \*

F, U, M

150

March 1951

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Further development of amplifier tubes as pipelass tubes

F, U, M

200

April 1951

Development of receiver tubes with flat cathode and plain electrodes in order to lower production costs.

F, U, M

100

April 1951

Development of miniature battery tubes requiring little heating current.

30

April 1951

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CLASSIFICATION SECRET

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## CENTRAL INTELLIGENCE AGENCY

-2-

Development of secondary emission cathodes for receiver tubes	W, U, M	70	April 1951
Investigation of the emission of coated and thorium cathodes	W, U	30	March 1951
Improvement of getter materials (Getterstoffe) to facilitate production and to obtain better getter (sic) effect	W, U, M	30	April 1951
Research in improved alloy for seal pins to be used as rigid contact pins	W, M	30	March 1951
Replacement of copper-to-glass seals by Fernico material for soft and hard glass and development of soldering procedures for the attachment of metal rings to the body of the tube	W, U, M	40	April 1951
Further development of the VEL-51 tube and of 26 various types of the 170, Z- and U-series. **		300	
2. Erfurt Radio Plant			
Further development of suitable methods for the manufacture of transmitter tubes. *	U	50	April 1951
Development of RS-391 type transmitter tubes	U, M	28	April 1951
Various high- and low-frequency measuring instruments		170	April 1951
3. ZLSS Berlin-Koepenick (RdT Zentrallaboratorium fuer Signal- und Sonderanlagen) Central Laboratory for Signal and Special Installations.			
Development of a commercial myra-metric (sic) wave receiver operating on wave length from 2,500 to 20,000 meters. *	F, U, M	10	January 1951
Development of a multiple unit steerable antenna (MUSA) for phase shifting and simultaneous reception with several receivers designed to improve reception for commercial operations.	F, U, M	30	April 1951
Development of a goniometer DF set	F, U, M	45	April 1951
Development of a 100-KW transmitter for medium waves	F, U, L	700	April 1951

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## CENTRAL INTELLIGENCE AGENCY

-3-

Development of a 20-KW transmitter for medium waves	F, U, L	150	March 1951
Development of a radio station to operate from Rügen for fishing craft	F, U, partly L	140	April 1951
Development of a common wave system for transmitters operating on medium wave	F, U, partly L	50	April 1951
Development of a control board for radio transmitters	F, U, partly L	80	March 1951
Development of a 50-KW transmitter operating on short waves	F, U, partly L	500	March 1951
Development of a series of types of HF generators for warming and hardening purposes.	F, U, partly L	?	?
Development of a transmitting and receiving station with automatic control of the distress wave employed for shipping	F, U, M	47	February 1951
Development of a 2-KW short-wave transmitter operating on a band from 13 to 100 meters employed for shipping	F, U, L	170	April 1951
Development of a distress signal transmitter to be installed in ships and of a distress signal receiver	F, U, M	40	January 1951
Development of an echograph for depth soundings	F, U, M	60	April 1951
Development of a speed indicator for ships incorporating a Ferraris motor integrating the speed indicating and registering the distance covered	F, U, M	7	January 1951
Development of a maritime distress signal transmitter. ***		150	
Development of radio monitoring desks		110	
Development of axle counters for use with railroads		70	
4. ENKO (RFT Entwicklungs- und Konstruktionsbuero) Development and Designs Bureau at 7 Melscher- strasse in Leipzig. Acting manager: Engineer Arno (fnu).			
Theoretical and experimental investigation of a modulating method requiring a smaller band width and working on the principle of a combined frequency and amplitude modulation. *	W	30	April 1951

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## CENTRAL INTELLIGENCE AGENCY

-4-

Development of an ultra-short wave control transmitter and receiver operating on a frequency range from 45 to 105 MHz; output 4 W, sensitivity $10 \times 10^{-12}$ V	F, U, H	20	April 1951
Development of a single side band receiving station for commercial broadcasting		120	February 1951
Development of an ultra-short wave transmitter and receiver for mobile radio stations		125	February 1951
Investigation of modulators for carrier frequency sets	W, H	30	April 1951
Development of a teleprinter for twin single sideband transmitters and receivers	F, U, H	80	April 1951
Development of a single sideband receiver **		80	
Development of an ultra-short wave transmitter and receiver		25	
Radio receivers for fishing craft		13	
Electronic drive for machine tools		13	
Portable carrier frequency telephone equipment of type Tfc 3 and 4		100	
Channel carrier frequency telephone equipment		16	
Industrial electronics		50	

## 5. Condenser Plant in Gera

Further development of electrolytic condensers with roughened electrodes *	F, U, H	30	April 1951
Development of new HF iron cores by pressing ferrite powder. This work is undertaken in cooperation with HESCHO KAHLA, Ceramic Products Firm at Bernsdorf	F, U, H	40	April 1951

## 6. Carl Zeiss Plant in Jena.

Construction of an electron microscope operating on the electrostatic principle **		610	
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Note:

Explanation of symbols.

F - Development up to production stage

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-5-

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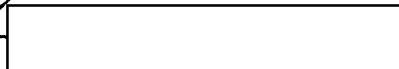
- U - Delivery of construction records and specific directives for production
- L - Production of a laboratory prototype
- M - Production of an experimental type
- W - Scientific report

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